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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,880	10/29/2003	Hirotada Higashihama	P24512	4120

7055 7590 03/10/2005

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EXAMINER	
PATEL, PARESH H	

ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,880	HIGASHIHAMA ET AL.	
	Examiner	Art Unit	
	Paresh Patel	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) *2-8,10 and 11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *02/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election with traverse of Species I, Fig. 1 (claims 1 and 9) in the reply filed on 01/10/2005 is acknowledged. The traversal is on the ground(s) that fig. 3, 9 and 13 relates to fig. 2, 8 and 12 as three different embodiment. This is not found persuasive because applicant did not distinguish between elected species I (fig. 1) and other species, and also agreed that there are three different embodiments as mentioned above.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (US 6002215) in view of Furukawa (US 6833708), Yamagishi (US 6246248) and Toichiro et al. (JP 3307173 B2).

Regarding claim 1, Yamashita et al. (hereafter Yamashita) in fig. 1 discloses an electrical leak detecting apparatus for detecting electrical leak of a power supply device including a DC/DC conversion circuit [6] in which a DC voltage supplied from a DC power supply [2] is chopped and boosted to a desired level by an insulated transformer so as to be outputted through its rectification and smoothing and a DC/AC conversion

circuit [3] for converting the DC voltage outputted from the DC/DC conversion circuit into an AC voltage, with the power supply device being operable electrically insulated from ground so as to supply the AC voltage to a load, the electrical leak detecting apparatus comprising:

two voltage division elements [12 and 12'] which have an identical impedance value and which are connected to each other in series between one of input terminals or output terminals of the DC/AC conversion circuit [3];

a detection element [13]; and

decider [5] which receives a voltage drop across the detection element as a detection signal and processes the detection signal so as to judge occurrence of the electrical leak [lines 40-43 of column 3].

Yamashita discloses all the elements except for a detection element which has one end connected to a junction of the voltage division elements; and

a capacitor which is inserted between the other end of the detection element and the ground.

Furukawa discloses a detection element [R_L with Fig. 3-4 or R3 with fig. 5], which has one end connected to a junction of the voltage division elements [see fig. 3-4 for R_L or R1-R2 of fig. 5] and decider [voltmeter] as claimed.

Yamagishi in fig. 1 discloses a capacitor [7] which is inserted between the other end of the detection element [3] and the ground [ground as shown with 7]; and

decider [17 and lines 61-67 of column 4 and lines 29-32 of column 5] which receives a voltage drop across the detection element [3] as a detection signal and processes the detection signal.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Yamashita with detection element as taught by Furukawa to detect the leakage in the line and with capacitor as taught by Yamagishi to bypass the noise.

Regarding claim 9, Yamashita discloses the electrical leak detecting apparatus as claimed in claim 1, further comprising: a switch member [lines 55-64 of column 9 and switch of fig. 12] for opening or closing a power supply path from the DC/AC conversion circuit to the load; wherein the decider judges occurrence of the electrical leak in a no-load state of the power supply device by opening the switch member prior to start of power supply from the power supply device to the load. However, Yamashita does not disclose location of switch member is not as claimed. It would have been obvious to relocate switch of fig. 12 as claimed to measure the leakage because Furukawa also discloses leakage circuit for insulation leakage as claimed and Yoichiro in abstract also discloses switch for leakage measurement, hence combination of Yamashita, Furukawa and Yoichiro measures the leakage in the line of the power source.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 572-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paresh Patel
March 07, 2005